

REMARKS

The Office Action mailed December 3, 2003, has been received and carefully noted. The preceding amendments and the following remarks are a complete and full response thereto. Claims 1, 2, 7, 11 and 15 have been amended to correct matters of form. No new matter has been added. Claims 1-17 are now pending in this application and reconsideration thereof is earnestly requested.

Claims 1-2, 7, 11 and 15 were rejected under 35 U.S.C. § 112, first paragraph, with respect to enablement. Claims 16-17, 8-10, and 12-14 were rejected based upon their dependencies on Claims 1, 7 and 11 respectively. It was asserted in the Office Action that the specification fails to disclose "a predetermined time slot" as recited in those claims. Even though Applicants believe that the language is fully supported by the specification, Applicants have amended the respective claims to remove the limitation of a "predetermined" time slot. Applicants submit that claims 1-2, 7, 11 and 15 comply with the requirements of 35 U.S.C. § 112. Accordingly, Applicants request that rejection be withdrawn.

Claims 1-2 and 4-6 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,240,125 B1, to Andersson *et al.* ("Andersson"). Applicants respectfully traverse the rejection and submit that claims 1-2 and 4-6 recite subject matter which is neither shown nor described by Andersson.

Claim 1 defines a base station apparatus for communicating with a plurality of subscriber stations on a TDMA wireless communication manner. The base station includes an interference time slot database and a TDMA control unit. The interference time slot database is for registering/storing therein a communication time slot in which interference happens to occur. The TDMA control unit is for executing reallocation/rearrangement of time slots communicating with the respective subscriber stations in response to a change in a traffic based upon the interference time slot information of the interference time slot database. When interference is detected in a time slot received from a subscriber station, the interference time slot information about the time slot in which interference was detected is registered into the interference time slot database. Time slot reallocation/rearrangement are carried out based upon registered information of the interference time slot database such that said time slot in

which interference is detected is reassigned to one or more time slots where no interference has been detected. Also, time slot reallocation/rearrangement information is transmitted to the respective subscriber stations.

Claim 2 defines a TDMA wireless communication system in which a base station communicates with a plurality of subscriber stations in a wireless manner. The base station includes an interference time slot database and a TDMA control unit. The database is for registering/storing therein a communication time slot in which interference happens to occur. The TDMA control unit is for executing reallocation/rearrangement of time slots communicating with the respective subscriber stations in response to a change in a traffic based upon the interference time slot information of the interference time slot database. When interference is detected in a time slot received from the base station, the subscriber station transmits interference time slot information to the base station. The base station which has received the interference time slot information registers the interference time slot information into the interference time slot database, performs the time slot reallocation/rearrangement based upon registered information of the interference time slot database such that the time slot in which interference is detected is reassigned to one or more time slots where no interference has been detected, and also transmits time slot reallocation/rearrangement information to the respective subscriber stations.

In contrast to the claimed invention, Andersson is directed to a radio communication system which utilizes channel hopping in a way such that channels with better channel quality can be more than channels with lower channel quality. See Abstract of Andersson. Andersson teaches a channel-hopping procedure in which separate hopsequence lists HL are formed for separate connections. First, measurement of interference on all channels is done, and then each channel is allocated a weight value based on the amount of interference detected in the channel. The weight value is the basis for creating the hopsequence lists. See Andersson, col. 5, lines 38-51. Channels with a better weight value are listed more often than channels with a worse weight value. As a result, during a channel hopping procedure, the channels with the least amount of interference are used more often than channels with interference. See Andersson, col. 6, 54-60.

However, Andersson does not teach a system that when interference is detected in a time slot received from a subscriber station, time slot reallocation/rearrangement is carried out based upon registered information of the interference time slot database such that the time slot in which interference is detected is reassigned to one or more time slots where no interference has been detected, as defined by claims 1 and 2. Andersson merely teaches a system that measures interference on all the channels and creates a channel hopping sequence list that increases the probability that channels with a higher channel quality will be used when channel hopping is performed. Thus, Applicants submit that Andersson fails to show or describe each and every feature of claims 1 and 2, and therefore, request that the respective rejection be withdrawn.

Claim 4 defines a TDMA wireless communication system in which a base station communicates with a plurality of subscriber stations in a wireless manner. Time slot allocations/arrangements of the respective subscriber stations are changed all at once every super frame of a TDMA frame. A base station transmits to the respective subscriber stations, subsequent time slot reallocation/rearrangement information with different time slot arrangements in a plurality of frames within a super frame period.

Andersson does not show or suggest that time slot allocations/arrangements of the respective subscriber stations are changed all at once every super frame of a TDMA frame. See claim 4. Andersson merely describes a channel hopping procedure that may be cyclical. See Andersson, col. 15, lines 52-64. Thus, Applicants submit that Andersson fails to show or describe each and every element of claim 4, and therefore, request that the rejection of claim 4 be withdrawn.

Claim 5 defines a base station apparatus in which while a service area of the own base station is subdivided into a plurality of sectors. The base station communicates with a plurality of subscriber stations in a TDMA wireless communication manner. The base station includes an interference time slot database and a TDMA controller. The interference time slot database is for registering/storing therein a communication time slot in which interference happens to occur. The TDMA control unit is for executing reallocation/rearrangement of time slots communicating with the respective subscriber stations in response to a change in a traffic based upon the interference time slot


information of the interference time slot database. When the time slot reallocation/rearrangement are carried out, the TDMA control unit reallocates/rearranges the time slots in this order of a subscriber station of such a sector where no interference happens to occur, and thereafter, another subscriber station where interference does not occur among sectors where the interference occurs. Dependent claim 6 adds the limitation to claim 5 that the interference time slot database manages the interference time slot information every sector.

As already described above, Andersson merely describes a system that measures interference on all the channels and creates a channel hopping sequence list that increases the probability that channels with a higher channel quality will be used when channel hopping is performed. Thus, Applicants submit that Andersson fails to show or describe each and every element of claims 4-6, and therefore, request that the rejection of claims 4-6 be withdrawn.

In view of the above, all objections and rejections having been satisfactorily addressed herein, Applicants therefore request that each of claims 1-17 be found allowable, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

RESPECTFULLY SUBMITTED,					
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